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GRC Environmental Programs Manual—Chapter 4

Air Pollution Control

Approved by: Energy and Environmental Management Office Chief

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Change Record

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A	4-2015	4-2020	14-004	Administrative Changes: Corrected name of office, corrected typos, changed SHED to SHeD, Added revision dates to forms. .

***Include all information for each revision. Do not remove old revision data. Add new rows to table when space runs out by pressing the tab key in the last row, far right column.*

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Chapter 4.—Air Pollution Control

NOTE: *This chapter is maintained and approved by the Energy and Environmental Management Office (EEMO). The last revision date of this chapter was March 2015. The current version is maintained on the Glenn Research Center intranet at http://www.grc.nasa.gov/WWW/FTD/EEMO/index.html. Approved by Chief of Energy and Environmental Management Office (EEMO).*

1.0 PURPOSE

This chapter establishes policies and procedures pertaining to the design, construction, modification or operation of new or existing sources of air pollution at the NASA John H. Glenn Research Center (GRC) at Lewis Field and Plum Brook Station.

This chapter conforms to GRC's Environmental Management System (EMS) as defined in Glenn Level Procedural Requirement (**GLPR 8553.1)** and supports GRC environmental policy, promoting pollution prevention, regulatory compliance, and continuous improvement.

2.0 APPLICABILITY

The requirements provided in this chapter applies to all employees (civil servants, support service contractors, tenant organizations, or other employees) who design, construct, modify, or operate new or existing sources of air pollution at GRC. This chapter is applicable to a lesser extent to other offsite entities involved with GRC activities.

3.0 BACKGROUND

The disposal of airborne wastes, air pollution, and the attempts to control it are in no way new concepts as noted even back in medieval England, where kings attempted to control the use of coal to prevent air pollution. World history, and especially the United States, shows many accounts of dangerous and fatal air pollution events. In the 1940s, Los Angeles began to experience severe air pollution problems called "gas attacks." In 1948, people were killed and injured from air pollution in Pennsylvania, and in 1966, Thanksgiving weekend in New York included many air pollution fatalities.

Many states began regulating air pollution. In 1955, the Federal Government decided that this problem needed to be dealt with on a national level and passed the Air Pollution Control Act of 1955, the Nation's first piece of Federal legislation on air pollution. The language of the bill identified air pollution as a national problem and announced the need for research and additional steps to improve the situation. Soon to follow, the Clean Air Act of 1963 with Amendments in 1965, 1966, 1967, and 1969 dealt with reducing air pollution by setting emissions standards for stationary sources, setting standards for auto emissions, expanding local air pollution control programs, establishing air quality control regions, setting air quality standards and compliance deadlines for stationary source emissions, and authorizing research on low-emissions fuels and automobiles.

Although technically an amendment, the Clean Air Act of 1970 was a major revision and set much more demanding standards. It established new primary and secondary standards for ambient air quality, set new limits on emissions from stationary and mobile sources to be enforced by both state and Federal governments, and increased funds for air pollution research. In 1990, the Federal government again revised the Clean Air Act to address five main areas: air quality standards, motor vehicle emissions and alternative fuels, toxic air pollutants, acid rain, and stratospheric ozone depletion. In many ways, this law set out to strengthen and improve the existing regulations.

4.0 POLICY

It is GRC policy to design, install, modify, or operate all air pollution sources in compliance with all local, state, and Federal laws, codes, standards, requirements, and permit conditions.

5.0 RESPONSIBILITIES

5.1 All Employees

All Employees (civil service, support service contractor, tenant organization employees, or other) shall

- Contact EEMO with any questions concerning the disposal of airborne waste

- Operate air pollution sources in compliance with local, state, and Federal codes, standards, requirements, and permit conditions
- Notify EEMO in the event that a regulatory or permit condition is not attainable
- Immediately notify EEMO in the event that an air pollution source experiences a permit limit or regulatory excursion
- Maintain emissions-related records for air pollution sources as required by regulatory or permit conditions
- Provide requested emissions-related data to EEMO, such as but not limited to, material usage rates or emission estimates. See Appendix **B** for NASA Air Program Annual Emission Tracking Record
- Notify EEMO of any planned new air pollution sources as early in the design process as possible
- Notify EEMO of any alterations to new or existing air pollution sources or their operation as early as possible

5.2 Responsible Official (RO)

RO shall

- The RO shall be responsible for the overall air pollution control program. For Title V purposes, the Responsible Official retains all responsibility and shall provide signatory authority/submission of all applications, certifications and reports. For State Permit to Install (PTI) and Permit to Operate (PTO) Purposes, the Responsible Official may delegate the responsibilities to a single Duly Authorized Employee

5.3 Duly Authorized Employee

Duly Authorized Employee, if delegated, Shall

- Act on behalf of the RO and shall provide signatory authority/submission of all applications, certifications and reports.

5.4 Energy and Environmental Management Office (EEMO)

EEMO shall

- Prepare air-related permit applications
- Prepare air-related reports to regulatory agencies
- Provide support and technical information on regulations regarding air pollution

5.5 Safety and Health Division (SHeD)

SHeD Shall

- Maintain and provide chemical purchase rate data
- Collect data, calculate and if necessary prepare and submit Toxic Release Inventory (TRI) reports also known as SARA Title III Section 313 Form R in accordance with Title III, Emergency Planning and Community Right-to-Know Act, of the Superfund Amendments and Reauthorization Act of 1986 and OAC Chapter 3745-100
- Should it become applicable, develop Risk Management Plans as per section 112r of the Clean Air Act and OAC Chapter 3745-104
- Ensure that all Asbestos renovation and demolition activities are conducted in accordance with 40 CFR 61 and OAC Chapter 3745-20

6.0 REQUIREMENTS

In matters involving interfacing with regulatory agencies, the GRC EEMO shall be the official point of contact in regards to air pollution. All new sources or air pollution and all modifications to existing sources of air pollution

require review and concurrence of EEMO prior to installation and operation. This requirement includes changes in operational practice, relocation, and discontinuation or removal a source.

6.1 Signatory Authority

- For Title V purposes, the RO retains all responsibilities of the air program. The RO shall provide signatory authority/submission of all applications, and certifying the required reporting information.
- The Center Director is the RO. The Director of the Facilities and Test Directorate is the DAE. The GRC Environmental Program Manager is delegated the authority to sign reports, plans, certifications, and official correspondence with regulatory agencies as necessary.

6.2 Regulatory Compliance

All air pollution sources shall operate in conformance with the local, state, and Federal codes, standards, requirements, and permit conditions.

7.0 RECORDS

- Local, Ohio EPA, and Federal Air Permits shall be maintained by EEMO and/or Ohio EPA
- Copies of local, Ohio EPA, and Federal Air Permit applications shall be maintained by EEMO and/or Ohio EPA
- Monthly asbestos blanket permit records shall be maintained by SHeD
- Copies of Emission Fee, Compliance, and other regulatory reports shall be maintained by EEMO and/or Ohio EPA

8.0 REFERENCES

Document Number	Document Name
42 U.S.C. Chapter 85	Air Pollution Prevention and Control
40 CFR Chapter 1, Subchapter C	Air Program
Ohio Revised Code 3701 and 3704	Air Pollution Control
Ohio Administrative Code 3745 Provisions	Environmental Protection Agency, Terms and Conditions of all Air Permits

APPENDIX A.—DEFINITIONS AND ACRONYMS

Air pollution (pollutants)—Excessive concentration of foreign matter in the air, which can adversely affect the well-being of the individual or can cause damage to property.

Clean Air Act (CAA)—Federal legislation that provides the basis for air pollution control efforts throughout the United States; components of the new law are multifaceted and encompass emissions, standards, monitoring, and enforcement.

Duly Authorized Employee (DAE)—If delegated, the Duly Authorized Employee shall act on behalf of the RO.

Emission—Release of pollutants into the air

Environmental Management System (EMS)

Environmental Protection Agency (EPA)

Glenn Level Procedural Requirement (GLPR)

Glenn Research Center (GRC)

Ohio Environmental Protection Agency (Ohio EPA)

Responsible Official (RO)—The Responsible Official is defined as the authority responsible for the overall air pollution control program.

Safety and Health Division (SHeD)

Source—Any site or object that emits pollutants, including stationary and mobile sources.

APPENDIX B.—NASA AIR PROGRAM ANNUAL EMISSION TRACKING RECORD

NASA Air Program Annual Emission Tracking Record for _____

Source:

Permit ID:

Primary Contact:

Fuel Usage / Emission Summary

Month	Fuel Type /Material	Amount used (gal, cubic ft)	Hours of (fuel burning) operation	Quarterly % operating rate	Remarks
Jan					
Feb					
Mar					
Apr					
May					
Jun					
Jul					
Aug					
Sep					
Oct					
Nov					
Dec					
TOTAL				100%	

Fuel Type:

1	Natural Gas	5	Jet A
2	JP-4	6	#2 Fuel Oil
3	JP-5	7	Diesel
4	JP-8	8	Other (Please Specify)

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